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**Notice of Allowability**

Application No.

09/598,181

Examiner

Sing P Chan

Applicant(s)

KENT, HOWARD DANIEL

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on June 21, 2004.
2. ☒ The allowed claim(s) is/are 2,4 and 6-11.
3. ☒ The drawings filed on 21 June 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**CURTIS MAYES**  
**PRIMARY EXAMINER**

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Susan L. Crockett on July 30, 2004.

The application has been amended as follows:

Claims 1, 3, and 5 are canceled.

2. A method for bonding a first material and a second material together, said method comprising the steps of:

securing a foam material to the first material; and then

applying the second material to the foam material;

wherein the first material is metal, the foam is metal foam, and the second material is rubber.

4. A method for bonding a structural material to a non-adherent material, said method comprising the steps of:

attaching the structural material and a foam together; and then

pouring the non-adherent material, in liquefied form, over the foam and structural material, wherein the non-adherent material goes through a process of solidification;

wherein the structural material is metal, the foam is metal foam, and the non-adherent material is rubber.

6. A method for bonding a first material and a second material together, said method comprising the steps of:

providing foam;

attaching the first material to the foam;

providing the second material in liquefied form; and then

adding the second material to the foam;

wherein the first material is metal, the foam is metal and the second material is rubber.

11. A method of attaching rubber to a metal piece, said method comprising the steps of:

attaching metal foam to the metal piece;

placing the metal foam and the metal piece into a mold; and then

pouring liquefied rubber into the mold; and

allowing the rubber to solidify whereby at least a portion of the rubber intermingles with the metal foam thus securing the rubber to the metal foam.

### **Marked Version Showing Changes Made**

2. ~~The method of claim 1,~~ A method for bonding a first material and a second material together, said method comprising the steps of:

securing a foam material to the first material; and then

applying the second material to the foam material;

wherein the first material is metal, the foam is metal foam, and the second material is rubber.

4. ~~The method of claim 3,~~ A method for bonding a structural material to a non-adherent material, said method comprising the steps of:

attaching the structural material and a foam together; and then

pouring the non-adherent material, in liquefied form, over the foam and structural material, wherein the non-adherent material goes through a process of solidification;

wherein the structural material is metal, the foam is metal foam, and the non-adherent material is rubber.

6. ~~The method of claim 5,~~ A method for bonding a first material and a second material together, said method comprising the steps of:

providing foam;

attaching the first material to the foam;

providing the second material in liquefied form; and then

adding the second material to the foam;

wherein the first material is metal, the foam is metal and the second material is rubber.

11. A method of attaching rubber to a metal piece, said method comprising the steps of:

attaching metal foam to the metal piece;

placing the metal foam and the metal piece into a mold; and then

pouring liquefied rubber into the mold; and

allowing the rubber to solidify whereby at least a portion of the rubber intermingles with the metal foam thus securing the rubber to the metal foam.

***Allowable Subject Matter***

2. Claims 2, 4, and 6-11 are allowed.

The following is an examiner's statement of reasons for allowance: The claims recite a method of bonding a rubber material to a metal material and rubber material to an armored vehicle track plate. The method includes providing a metal foam, attaching metal foam to a metal (claims 2 and 6), metal structure (claim 4), a metal piece (claim 11), or a foam to an armored vehicle track plate (claims 7-10), placing the foam and track plate (claims 7-10) or the metal foam and metal pieces into a mold (claim 11), pouring liquefied rubber onto the metal foam and metal (claims 2 and 6) or metal structure (claim 4) or metal piece (claim 11) or foam and track plate (claims 7-10), and allowing the liquefied rubber to solidify and intermingles with metal foam (claim 11) or foam. (claim 7) Jarema et al (U.S. 3,839,080) discloses a method of plastic coating metallic foams. The method includes providing a metal foam, applying plastic material such as rubber, to the metal foam, allowing the plastic material to solidified, jointing to another foamed metal article, metal sheets or other materials. (Abstract, Col 2, lines 8-19, Col 3, lines 14-60) However, Jarema et al is silent as to the attaching metal foam to other metal material such as metal structure or piece or track plate prior to pouring liquefied rubber onto the metal foam or foam.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P Chan whose telephone number is 571-272-1225. The examiner can normally be reached on Monday-Friday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher A Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Chan Sing P*  
spc

*Curtis Mayes*  
CURTIS MAYES  
PRIMARY EXAMINER